

Docket No.: 115584.0368
(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:
Philip KITHIL

Application No.: 10/562,442

Confirmation No.: 3577

Filed: June 19, 2006

Art Unit: 3661

For: CRASH SENSING VIA PIEZOELECTRIC
SENSORS

Examiner: Y. Beaulieu

INFORMATION DISCLOSURE STATEMENT (IDS)

Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed after the mailing date of a Notice of Allowance, but before payment of the Issue Fee (37 CFR 1.97(d)). Applicant hereby petitions that the Information Disclosure Statement be considered.

I hereby certify, pursuant to 37 CFR 1.97(e)(1), that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. A concise explanation of relevance of the items listed on form

PTO/SB/08 is in the form of an English language copy of an Office Action (copy attached) issued on October 28, 2009 in the corresponding Japanese Application No. 2006-517499 which refers to the relevant portions of the references.

In accordance with 37 CFR 1.98(a)(2)(ii), Applicant has not submitted copies of U.S. patents and U.S. patent applications. Applicant submits herewith copies of foreign patents and non-patent literature in accordance with 37 CFR 1.98(a)(2). A summary/abstract translation of the non-English language references is enclosed. English language counterparts are provided for the references without a summary/abstract.


In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed references.

Please charge our Deposit Account No. 23-2185 in the amount of \$180.00 covering the fee set forth in 37 CFR 1.17(p). The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 23-2185, under Order No. 115584.0368.

Dated: January 25, 2010

Respectfully submitted,

Electronic signature: /Tara L. Marcus/
Tara L. Marcus

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NOTICE OF REASONS FOR REJECTION

Application Number: 2006-517499
Drafted: 2009/10/28 (year/month/day)
Examiner: Takeshi YONEYAMA 9324 3Q00
Attorney: Masatake SHIGA et al.
Cited Articles: Article 29, Paragraph 2
Article 29^{bis}

This application should be rejected for the reason(s) given below. If the applicant wishes to comment thereon, the applicant is invited to submit a response within three months from the Mailing Date of this notice.

REASON(S)

1. The invention(s) according to the below-listed claim(s) of the present application could have been easily made prior to the filing of the present application by a person with average knowledge in the field to which the invention(s) belongs based on the invention(s) described in the below-listed distributed publication(s) or made available to the public through electric telecommunication lines in Japan or elsewhere prior to the filing of the present application, and it is therefore deemed to be unpatentable under the provisions of Japanese Patent Law, Article 29, Paragraph 2.

2. The invention(s) according to the below-listed claim(s) of the present application is identical to the invention(s) disclosed in the specification or drawings as originally filed with the below-listed international application(s) on the international filing date of the foreign language application, which is a foreign language application (excluding any deemed to have been withdrawn by the stipulations in Japanese Patent Law, Article 184^{quarter}, No. 3) filed prior to the filing date of the present application and made public after the filing date of the present application; the inventor(s) of the present application is not identical to the party(ies) who made the above-mentioned invention(s) for which a foreign language application(s) was filed prior to the filing date of the present application; and at the time the present application was filed, the applicant(s) of the present application was not identical to the applicant(s) of the foreign language application(s) filed prior to the filing date of the present application; therefore, the invention(s) according to the below-listed claim(s) of the present application is deemed to be unpatentable under the

provisions of Japanese Patent Law, Article 29^{bis} (refer to Japanese Patent Law, Article 184^{terdecies}).

(See the List of Citations for the cited publications)

EXAMINER'S COMMENTS

- Reason: 1
- Claims: 1 to 15
- Citations: 1 to 5
- Notes:

Regarding Claims 1 and 13 to 15, Citation 1 (in particular, Paragraphs [0020] to [0068] and Figs. 1 to 21 [*line 5 in column 6 to line 23 in column 12 of Citation 1*]) discloses a method and system for characterizing sensor signal responses for automotive vehicle crash analysis, said method comprising: providing at least one sensor mounted at a predetermined location on the automobile vehicle; sampling a response from the sensor for a predetermined period of time; subjecting the response from the sensor to a wavelet analysis and obtaining signal amplitudes; plotting the signal amplitudes in three-dimensional space (Paragraph [0046] and Fig. 7 [*lines 3 to 13 in column 9 of Citation 1*]) and forming a cluster of signal amplitudes; comparing a most recent cluster to reference clusters (threshold level F0) that are indicative of both crash and non-crash events; and providing appropriate instructions to an occupant restraint control system in the automotive vehicle.

Further, using a PVDF sensor as a sensor for crash analysis is a well-known technology (if necessary, refer to, for example, Citation 2 (lines 13 to 16 on page 9 [*lines 15 to 19 on page 5 of Citation 2*]) and Citation 3 (Paragraph [0020])).

Regarding Claims 2, 3, and 5, providing a sensor for automotive vehicle crash analysis on a windshield is a well-known technology (if necessary, refer to, for example, Citation 4 (Paragraphs [0031] to [0035] and Figs. 3 to 5 [*line 4 on page 11 to line 5 on page 12 of Citation 4*])).

Regarding Claim 4, Daubechies wavelet analysis is a well-known technology (if necessary, refer to, for example, Citation 5 (Paragraph [0024])).

Regarding Claims 6 to 8, appropriately determining the placement of the sensor is a matter of design.

Regarding Claims 9 to 12, utilizing a well-known circuit as the circuit for crash

analysis is a matter of design.

- Reason: 2
- Claims: 1 to 15
- Citation: 6
- Notes:

The specification of this prior application (Citation 6: Priority Date = January 16, 2002; in particular, refer to Paragraphs [0014] to [0051] and Figs. 1 to 7 [*line 24 on page 4 to line 17 on page 14 of Citation 6*]) discloses a method and system for characterizing PVDF piezoelectric sensor (PVDF sensors 1, 2, 3) signal responses for automotive vehicle crash analysis, said method comprising: providing at least one piezoelectric sensor mounted on a windshield of the automobile vehicle; sampling a response from the piezoelectric sensor for a predetermined period of time; subjecting the response from the piezoelectric sensor to a wavelet analysis and obtaining signal amplitudes ("wavelets" in Paragraph [0050] [*line 27 on page 13 to line 10 on page 14 of Citation 6*]); and providing appropriate instructions to an occupant restraint control system in the automotive vehicle. Further, simply applying well-known technologies, such as plotting the signal amplitudes in three-dimensional space, analyzing a crash by comparison with reference clusters, and using Daubechies wavelet analysis, is nothing more than slight differences in the specific means for solving the problems.

LIST OF CITATIONS

1. Japanese Unexamined Patent Application, First Publication No. H09-315265
[1'. *United States Patent No. 5,814,897; Corresponding English language application*]
2. Published Japanese Translation No. 2002-504223 of the PCT International Publication
[2'. *PCT International Publication No. WO 97/16735; Corresponding English language application*]
3. Japanese Utility Model Application No. H03-95587 (First Publication No. H05-45567)
[*No English version available*]
4. Published Japanese Translation No. 2002-537568 of the PCT International Publication
[4'. *PCT International Publication No. WO 00/50261; Corresponding English language application*]
5. Japanese Unexamined Patent Application, First Publication No. H10-263989
[5'. *English language abstract prepared by the JPO*]

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[6'. PCT International Publication No. WO 03/062780; Corresponding English language application]

RECORD OF PRIOR ART SEARCH

- Searched Technical Fields: IPC B60R21/00-21/13
B60R21/34

- Prior Art Reference(s):

1. United States Patent No. 6,823,244
2. Japanese Unexamined Patent Application, First Publication No. 2000-50488
3. Japanese Unexamined Patent Application, First Publication No. H06-19956
4. Japanese Unexamined Patent Application, First Publication No. H04-275685
5. Japanese Unexamined Patent Application, First Publication No. H08-258665
6. European Patent Application, Publication No. 1 950 548

This record of the prior art search does not constitute the reasons for rejection.